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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/367,829	08/23/1999	ATSUYA KUME	1137-788	4817

6449 7590 10/01/2002

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ART UNIT	PAPER NUMBER
2684	

DATE MAILED: 10/01/2002

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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Paper No. 14

Application Number: 09/367,829
Filing Date: August 23, 1999
Appellant(s): KUME, ATSUYA

Vincent DeLuca
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 07/29/02.

(1) Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

The statement of the status of the claims contained in the brief is correct.

(3) Status of Claims

The statement of the status of the claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Invention

The summary of invention contained in the brief is correct.

(6) Issues

The appellant's statement of the issues in the brief is correct.

(7) Grouping of Claims

Appellant's brief includes a statement that claims 9, 10, 12-13, 20, 23-24 do not stand or fall together.

(8) Claims Appealed

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Prior Art of Record

5,711,004	BLASIAK ET AL	01-1998
5,594,943	BALACHANDRAN	01-1997

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 8-9, 19-20 are rejected under 35 U.S.C. 102(b). This rejection is set forth in prior Office Action, Paper No. 6.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

1. Claims 8, 9, 19, 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Balachandran (US 5,594,943).

Regarding claim 8, Balachandran discloses a radio communication system comprising: a radio unit connected to a transmitter-receiver antenna 550 (fig 5B2); the radio unit measuring a field intensity level and a circuit quality value (parameters RSSI, BER, etc.) of a radio communication signal of a call received from a base station (col 23, lines 30-65); and a control unit 522 (fig. 5B1) which compares either or both of field

intensity level and circuit quality measured by the radio unit with thresholds, and gives a handover instruction to the radio unit to start a handover to transfer the call to another base station 54 if the channel that can be acquired does not violate the threshold based on the measured field intensity level or the measured circuit quality (fig. 17, numeral block 1705; col 23, lines 30-65), and lowers the default threshold (fig. 17, numeral block 1709) when a handover operation is unsuccessfully executed (see fig. 17 and 20, col 25, lines 33-61 and col 23, lines 30-65).

Regarding claim 9, Balachandran discloses the radio communication system according to claim 1, wherein the control unit restores the at least one default threshold upon successful transfer of the call to another base station (fig. 17 from numeral block 1705 to 1701; col 25, lines 49-52).

Regarding claim 19, Balachandran discloses a method for controlling transfer of a radio communication signal of a call to a radio communication apparatus from one base station to another base station, comprising the steps of: measuring a field intensity level and a circuit quality value of a radio communication signal of a call received from said one base station (col 3, lines 23-42); comparing either or both of the measured field intensity level and circuit quality value with respective predefined thresholds (col 23, lines 30-65); commencing a handover operation to transfer said call to another base station if at least one of said measured field intensity level and said circuit quality value is below its respective threshold (fig. 17, numeral block 1705; col 23, lines 30-65); and when said handover operation fails to transfer said call to another base station, lowering

at least one of said thresholds (see fig. 20, col 25, lines 33-61; fig. 17, numeral block 1709).

Regarding claim 20, Balachandran discloses a method as set forth in claim 19, further comprising the step of restoring said at least one default threshold upon successful transfer of said call to another base station (fig. 17 from numeral block 1705 to 1701; col 25, lines 49-52).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 10, 12-13, 21, 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Balachandran in view of Blasiak et al (US 5,711,004).

Regarding claim 10, Balachandran disclose a radio communication system as set forth in claim 1, wherein Balachandran didn't further disclose selecting means for enabling a user to selectively inhibit changing of a default threshold by said control unit. Blasiak further discloses selecting means for enabling a user to selectively inhibit changing of a default threshold by said control unit (col 3, lines 63-66; col 5, lines 24-25). It would have been obvious to one of ordinary skill in the art at the time the

invention was made to add the user defined threshold to leave the adjusting of the threshold as static or variable up to the user.

Regarding claim 12, Balachandran discloses radio communication system as set forth in claim 1, wherein Balanchandran didn't further disclose the control unit accepts an instruction from a user to inhibit a handover operation regardless of the result of comparison of said measured field intensity level and said circuit quality value with said thresholds. Blasiak further discloses a control unit that accepts an instruction from a user to inhibit a handover operation regardless of the result of comparison of said measured field intensity level and said circuit quality value with said thresholds (col 5, lines 11-15). It would have been obvious to one of ordinary skill in the art at the time the invention was made to adapt the teaching of Blasiak to the system Balachandran to allow the user to not permit handoff to occur by changing the threshold to a level outside of the permissible handoff range and wait for an optimal base station to handoff to.

Regarding claim 13, Balanchandran discloses radio communication system as set forth in claim 1, wherein Balachandran didn't disclose further the control unit accepts an instruction from a user to execute a handover operation regardless of the result of comparison of said measured field intensity level and said circuit quality value with said thresholds. Blasiak further discloses a control unit accepts an instruction from a user to execute a handover operation regardless of the result of comparison of said measured field intensity level and said circuit quality value with said thresholds (col 5, lines 24-30). It would have been obvious to one of ordinary skill in the art at the time the invention

was made to adapt the teaching of Blasiak to the system Balachandran in order to allow the user to demand a forced handoff to occur at whichever point that the user prefers.

Regarding claim 21, Balanchandran discloses the method as set forth in claim 19, Balachandran didn't further discloses the method comprises the step of enabling a user to selectively inhibit changing of a default threshold. Blasiak further discloses the step of enabling a user to selectively inhibit changing of a default threshold. (col 3, lines 63-66; col 5, lines 24-25). It would have been obvious to one of ordinary skill in the art at the time the invention was made to add the user defined threshold of Blasiak to the system Balachandran to leave the adjusting of the threshold as static or variable up to the user.

Regarding claim 23, Balachandran et al discloses the method as set forth in claim 19, Balachandran didn't further disclose the method comprises the step of accepting an instruction from a user to inhibit a handover operation regardless of the result of comparison of said measured field intensity level and said circuit quality value with said thresholds. However, Blasiak discloses further the step of accepting an instruction from a user to inhibit a handover operation regardless of the result of comparison of said measured field intensity level and said circuit quality value with said thresholds (col 5, lines 11-15). It would have been obvious to one of ordinary skill in the art at the time the invention was made to adapt the teaching of Blasiak to the system Balachandran in order to allow the user to choose not to permit handoff by adjusting the threshold outside the permissible handoff range and wait for an optimal base station to handoff to.

Regarding claim 24, Balachandran et al discloses the method as set forth in claim 19, Balachandran didn't further disclose the method comprises the step of accepting an instruction from a user to execute a handover operation regardless of the result of comparison of the measured field intensity level and said circuit quality value with said thresholds. Blasiak et al discloses further the step of accepting an instruction from a user to execute a handover operation regardless of the result of comparison of the measured field intensity level and said circuit quality value with said thresholds (col 5, lines 24-30). It would have been obvious to one of ordinary skill in the art at the time the invention was made to adapt the teaching of Blasiak to the system Balachandran in order to allow the user to demand a forced handoff to occur no matter what by the user's preference.

(11) Response to Argument

With respect to the rejection regarding claims 8-9, 19-20 as being unpatentable over Balachandran, the response will be as follows:

With respect to claims 8 and 19, appellants state that Balachandran's discussion at col 24, line 21 to col 26, line 13 is directed to changing the threshold values only upon acquiring a channel. In other words, no channel needs to be acquired while it is required by appellants' claim 8. In response to Applicant's argument that Balachandran does not include certain features of Applicant's invention, the limitations on which the Applicant relies (i.e. claim 18 requires the channel to be acquired before changing the thresholds) are not stated in the claims. Therefore, it is irrelevant whether the reference

includes those features or not. Also, Appellants state that in particular, col 24, line 21 - col 26, line 13 discloses Figure 17. However, the cited columns and lines cited by appellants are directed to Figures 18-20 and not necessarily Figure 17. Therefore, appellants' argument with respect to Figures 18-20 are considered to be other embodiments of Balachandran. "Figure 17 shows a state diagram in which the thresholds are adjusted see col 24, lines 18-20". Appellants admitted on page 5 of the argument, that in Fig. 17, The Attempt Handoff Mode goes to either the Normal Mode 1701, an Initial Acquisition Mode 1707 or to an Adjust Threshold and Acquire Mode 1709. Therefore, from numeral block 1705 step 2 goes from "an attempt handoff or when handoff fails to acquire valid channel" the process proceeds to step 3, numeral block 1709 "in which the threshold is adjusted."

Further, Appellants state that Balachandran does not teach the adjustment of a threshold when a handoff operation fails to transfer a call to another base station as in the present invention. The examiner refers to the Grounds of rejection (or in the last Final Office Action page 4, lines 6-7 and Advisory Action) wherein the examiner clearly points out this teaching. Specifically, the cited column 23, lines 30-65 of Balachandran teaches according to a third embodiment that when a mobile attempt a cell transfer and when handoff fails, or when the mobile fails the attempt to transfer to another channel or cell, then the threshold is adjusted. Apparently, the channel has not been acquired due to the failed attempt to transfer to another channel when the threshold is adjusted. Again, the examiner refers to the Grounds of rejection (or the last Advisory Action) wherein the examiner clearly points of the adjustment of the threshold when a handoff

operation fails. Specifically, col 24, lines 5-8 of Balachandran states that "preferably when adjustments have been made to the thresholds in response to a predefined number of failed attempts to handoff (for example three)" . In other words, after each failed attempt of handoff (here an example of three is given but is not relevant) an adjustment have been made to the threshold.

With respect to claims 9 and 20, appellants state that Balachandran didn't disclose restoration of the adjusted threshold to the default value. However, the claims did not specifically claim restoring the adjusted threshold but just "restoring the at least one default threshold when handoff is successful" which could be interpreted as when handoff doesn't fail then the original default threshold is used as the current threshold and no adjustment to the threshold is made. Specifically, as shown in Figure 17, numeral block 1705, when the attempt handoff mode becomes successful, there is no adjusting of threshold at block 1709 since handoff is successful.

With respect to claims 10 and 21, appellants state that Balachandran fails to disclose further the limitation of claims 10 and 21 by generalizing and summarizing that Blasiak is directed to a method for minimizing message interruptions during a handoff. This allegation is irrelevant to the further limitations of claims 10 and 21. Appellants further allege that the cited col 3, lines 63-66 and col 4, lines 24-25 fails to disclose the selective inhibition means. The examiner recognizes that appellants should consider the references as a whole in responding to the rejection made by the examiner. Also, appellants fails to realize the language of the reference in the cited columns and lines is broad enough to cover the further limitations of claims 10 and 21. Blasiak teaches the

"user defined threshold" (cited col 3, lines 63-66 of final office action) in which the user has the authority to leave the threshold unchanged or "static" (see cited col 3, lines 63-66 and col 4, lines 24-25). Therefore, the system and method of Balachandran as modified by Blasiak would have provided the limitations as now claimed in claims 10 and 21.

Regarding claims 12 and 23, appellants alleges that Balachandran fails to teach inhibiting a handover operation regardless of the result of comparison of the signal parameters with the thresholds. Again, appellants fail to realize that the cited columns and lines can be interpreted to read on the applicants' further limitations of claims 12 and 23. Specifically, the user can set the threshold to a lower value in order to disallow handoff no matter what therefore "the result of comparison" is an unnecessary condition and not taken into account because the user ignored these conditions as is cited in col 5, lines 11-15 of the final office action. Therefore, the system and method of Balachandran as modified by Blasiak would have provided the limitations as now claimed in claims 12 and 23.

Regarding claims 13 and 24, appellants state that Balachandran didn't disclose accepting an instruction from to execute a handover operation regardless of the result of the comparison of the set forth signal parameters with the thresholds. Again, appellants fail to realize that the cited columns and lines can be interpreted to read on the applicants' further limitations of claims 13 and 24. Specifically, in the cited column 5, lines 24-30 of the final office action, the "handoff is forced to occur" which in other words nothing else is taken into account (i.e. signal strength, quality, noise) and is

unnecessary and irrelevant since the user ignores these conditions when handoff is forced to execute. Therefore, the system and method of Balachandran as modified by Blasiak would have provided the limitations as now claimed in claims 13 and 24.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Lana Le

September 20, 2002

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